

CLAIMS

1. A folding table comprising:

a table top having a top surface and a bottom surface extending between a first end and a second end, the table top being divided at a plane transverse to the table top at a point located between the first end and the second end to form a first planar portion and a second planar portion, the table top configured to be selectively positionable between a working position and a storage position;

a first leg pivotally connected to the first planar portion;

a second leg pivotally connected to the second planar portion;

a first hinge assembly disposed between the first planar portion and the second planar portion, the first hinge assembly comprising:

a hinge pin disposed under the bottom surface of the table top and intersecting with the plane, the longitudinal axis of the hinge pin forming a hinge axis;

a first hinge connector having a first end connected to the first planar portion and a second end pivotally disposed about the hinge pin, the first hinge connector including a cam portion on the second end;

a second hinge connector having a first end connected to the second planar portion and a second end pivotally disposed about the hinge pin, the second hinge connector including a locking slot;

a locking pin adapted to be disposed in the locking slot of the second hinge connector;

a handle portion having a first end coupled to the locking pin; and

a spring having a first end biased against the locking pin.

2. The folding table as recited in claim 1, wherein the spring is coupled to one of the first leg or second leg.

3. The folding table as recited in claim 1, wherein the cam portion further comprises a first exposed edge and a second exposed edge, wherein in the locked position, the second exposed edge engages the locking pin and in the unlocked position, the first exposed edge engages the locking pin.

4. The folding table as recited in claim 1, comprising a second hinge assembly disposed between the first planar portion and the second planar portion.

5. The folding table as recited in claim 4, wherein the hinge pin for the first hinge assembly and the second hinge assembly is the same structure.

6. The folding table as recited in claim 1, further comprising a first and second spaced apart side rail connected to the bottom surface of the first planar portion and a third and fourth spaced apart side rail connected to the bottom surface of the second planar portion, wherein the first hinge connector is connected to the first siderail of the first planar portion and the second hinge connector is connected to the third siderail of the second planar portion.

7. The folding table as recited in claim 6, wherein the first, second, third and fourth side rails are separate members rigidly attached to the first and second planar portions.

8. The folding table as recited in claim 6, wherein the first leg is pivotally connected to the first and second side rail and the second leg is pivotally connected to the third and fourth side rail.

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9. A folding table comprising:
- a table top having a top surface and a bottom surface extending between a first end and a second end, the table top comprising a first planar portion and a second planar portion;
 - a first leg pivotally connected to the first planar portion;
 - a second leg pivotally connected to the second planar portion;
 - a hinge pin disposed under the bottom surface of the table top, the longitudinal axis of the hinge pin forming a hinge axis;
 - a first hinge connector having a first end connected to the first planar portion and a second end pivotally disposed about the hinge pin;
 - a second hinge connector having a first end connected to the second planar portion and a second end pivotally disposed about the hinge pin; and
 - a locking mechanism configured to selectively lock the table top in the working position, the locking mechanism comprising:
 - a cam portion formed on the second end of one of the first hinge connector and the second hinge connector;
 - a locking slot formed on the other of the first hinge connector and the second hinge connector that does not have the cam portion;
 - a locking pin adapted to be disposed in the locking slot;
 - a spring having a first end biased against the locking pin; and
 - a handle portion having a first end coupled to the locking pin.

10. The folding table as recited in claim 9, wherein operation of the handle selectively positions the locking pin between a locked position wherein the locking pin abuts the cam portion so as to substantially prevent at least one of the first hinge connector and second hinge connector from rotatable movement about the hinge axis, and an unlocked position wherein at least one of the first hinge connector and second hinge connector is able to freely rotate about the hinge axis.

11. The folding table as recited in claim 9, wherein the spring is coupled to one of the first leg or second leg.

12. The folding table as recited in claim 9, wherein the cam portion further comprises a first exposed edge and a second exposed edge, wherein in the locked position, the second exposed edge engages the locking pin and in the unlocked position, the first exposed edge engages the locking pin.

13. The folding table as recited in claim 9, comprising a second hinge assembly disposed between the first planar portion and the second planar portion.

14. The folding table as recited in claim 13, wherein the hinge pin for the first hinge assembly and the second hinge assembly is the same structure.

15. The folding table as recited in claim 9, further comprising a first and second spaced apart side rail connected to the bottom surface of the first planar portion and a third and fourth spaced apart side rail connected to the bottom surface of the second planar portion, wherein the first hinge connector is connected to the first siderail of the first planar portion and the second hinge connector is connected to the third siderail of the second planar portion.

16. The folding table as recited in claim 15, wherein the first, second, third and fourth side rails are separate members rigidly attached to the first and second planar portions.

17. The folding table as recited in claim 15, wherein the first leg is pivotally connected to the first and second side rail and the second leg is pivotally connected to the third and fourth side rail.

18. A folding table comprising:

a table top having a top surface and a bottom surface extending between a first end and a second end, the table top comprising a first planar portion and a second planar portion;

a first leg pivotally connected to the first planar portion;

a second leg pivotally connected to the second planar portion;

a hinge pin disposed under the bottom surface of the table top, the longitudinal axis of the hinge pin forming a hinge axis;

a first hinge connector having a first end connected to the first planar portion and a second end pivotally disposed about the hinge pin;

a second hinge connector having a first end connected to the second planar portion and a second end pivotally disposed about the hinge pin;

a first support brace having a first end coupled to the first leg and a second end coupled to the first hinge connector;

a second support brace having a first end coupled to the second leg and a second end coupled to the second hinge connector;

a locking mechanism configured to selectively lock the table top in the working position, the locking mechanism comprising:

a cam portion formed on the second end of the first hinge connector;

a locking slot formed on the second hinge connector;

a locking pin adapted to be disposed in the locking slot;

a spring having a first end biased against the locking pin; and

a handle portion having a first end coupled to the locking pin.